

### **REMARKS/ARGUMENTS**

Claims 1-11 are all the claims pending in this application.

Reconsideration of the subject patent application and allowance of the claims are respectfully requested in view of the following remarks.

As a preliminary matter, the Patent Office has not provided an initialed and signed copy of the Supplemental Information Disclosure Statement (SIDS), Form PTO-1449, filed October 26, 2004. Applicant respectfully requests an initialed and signed copy of the SIDS.

Claims 1-11 have been rejected under 35 U.S.C. § 102(a) as being anticipated by de Waard et al. (U.S. Patent No. 6,207,936) ("Waard"). Applicant respectfully traverses the rejection as set forth below.

Applicable case law holds that in order to anticipate a claim, a single prior art reference must disclose each and every feature of the claim.<sup>1</sup> In this instance, however, Waard does not teach all of the features of independent claims 1, 6-9 and 11.

The Patent Office avers that Waard discloses the invention of claims 1, 6-9 and 11. The entire rejection is set forth below:

Note column 8 in de Waard et al sets forth a master slave type arrangement which would in effect comprise a main computational unit and a [sic] sub computational units, PID controllers, as claimed.<sup>2</sup>

Independent claim 1 recites, inter alia, "a main computation section for carrying out control of said controlled system by receiving the steady-state reference value and the detection value, and by generating a manipulated variable that varies such that the detection value converges to the steady-state reference value." Independent claims 6-

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<sup>1</sup> See Gechter v. Davidson, 116 F.3d. 1454, 1457 (Fed. Cir. 1997).

<sup>2</sup> Office Action at page 2.

9 and 11 have a similar limitation. Waard fails to disclose, teach or suggest this limitation.

Waard relates to a model-based predictive control of thermal processing. A multivariable temperature response is predicted using a neural network. Predictions are made in an auto-regressive moving average fashion with a receding prediction horizon. The predictions are used to calculate an optimum control strategy by which to control the source of the thermal energy.<sup>3</sup> There is no disclosure of a computation section that controls a controlled system by receiving a steady-state reference value and a detection value. Further, Waard does not teach or suggest that the controlled system is controlled by generating a manipulated variable that varies such that the detection value converges to the steady-state reference value. Thus, Waard does not satisfy this limitation.

Independent claim 1 further recites, inter alia, "a main detecting section for supplying said main computation section with the detection value." Independent claims 6-9 and 11 have a similar limitation. Since Waard does not disclose the claimed "main computation section," Waard cannot teach or suggest this limitation. Even assuming, arguendo, that Waard does disclose a main computation section, although it does not, there is absolutely no teaching of a detection value that converges to a steady-state reference value in the Waard reference.

Independent claim 1 recites further, inter alia, "a sub-computation section for carrying out control of said controlled system by receiving the detection value of said main detecting section and another detection value, and by generating a manipulated variable that varies such that the another detection value converges to the detection value input to said main computation section." Independent claims 6-9 and 11 have a similar limitation. Waard fails to disclose, teach or suggest this limitation.

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<sup>3</sup> See, e.g., Figures 4 and 5.

The model-based predictive control system of Waard does not include a sub-computation section that receives two detection values, one of which being supplied by a main detecting section to a main computation section, for controlling a controlled system. Thus, Waard does not meet this limitation.

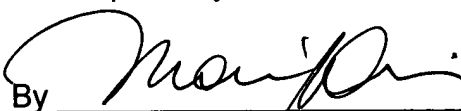
Further, independent claim 1 recites, inter alia, "a sub-detecting section for supplying said sub-computation section with the another detection value." Independent claims 6-9 and 11 have a similar limitation. Waard fails to disclose, teach or suggest this limitation. Since Waard does not disclose a "sub-computation section" that receives "another detection value," Waard cannot teach or suggest this limitation. Thus, this limitation is not met by Waard.

Since Waard fails to teach each and every limitation of claims 1, 6-9 and 11, Ward cannot anticipate these claims. Thus, the 35 U.S.C. § 102(a) rejection of claims 1, 6-9 and 11 should be withdrawn.

Dependent claims 2-5 and 10 depend on at least one of independent claims 1 and 9, and should be allowed for at least the same reasons discussed above with respect to claims 1 and 9.

Applicant submits that the present application is now in condition for allowance. Reconsideration and favorable action are earnestly requested.

Respectfully submitted,

By 

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